

Robert Greene Sterne
Edward J. Kessler
Jorge A. Goldstein
David K.S. Cornwell
Robert W. Esmond
Tracy-Gene G. Durkin
Michele A. Cimbala
Michael B. Ray
Robert E. Sokohl
Eric K. Steffe
Michael Q. Lee
Steven R. Ludwig
John M. Covert
Linda E. Alcorn
Robert C. Millonig
Lawrence B. Bugaisky
Donald J. Featherstone
Michael V. Messinger

Judith U. Kim
Timothy J. Shea, Jr.
Patrick E. Garrett
Heidi L. Kraus
Edward W. Yee
Albert L. Ferro*
Donald R. Banowitz
Peter A. Jackman
Molly A. McCall
Teresa U. Medler
Jeffrey S. Weaver
Kendrick P. Patterson
Vincent L. Capuano
Eldora Ellison Floyd
Thomas C. Flala
Brian J. Del Buono
Virgil Lee Beaton
Kimberly N. Reddick

Theodore A. Wood
Elizabeth J. Haanes
Joseph S. Ostroff
Frank R. Cottingham
Christine M. Uhliet
Rae Lynn Pregelman
Jane Shershenovich*
Lawrence J. Carroll*
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Daniel A. Klein*
Jason D. Eisenberg
Michael D. Specht
Andrea J. Kamage
Tracy L. Muller*
LuAnne M. Yuricek*
John J. Figueroa
Ann E. Summerfield
Tiera S. Coston*

Aric W. Ledford*
Registered Patent Agents*
Karen R. Markowicz
Nancy J. Leith
Helene C. Carlson
Gaby L. Longworth
Matthew J. Dowd
Aaron L. Schwartz
Mary B. Tung
Katrina Y. Pei Quach
Bryan L. Skelton
Robert A. Schwartzman
Timothy A. Doyle
Jennifer R. Mahalingappa
Teresa A. Colella
Jeffrey S. Lundgren

Victoria S. Rutherford
Eric D. Hayes
Of Counsel
Kenneth C. Bass III
Evan R. Smith

*Admitted only in Maryland
*Admitted only in Virginia
*Practice limited to
Federal Agencies

December 15, 2003

WRITER'S DIRECT NUMBER:
(202) 772-8525
INTERNET ADDRESS:
BRIAND@SKGF.COM

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Art Unit 1634

Re: U.S. Non-Provisional Patent Application
Application No. 09/517,466; Filed: March 2, 2000
For: **Compositions and Methods for Use in Recombinational Cloning of
Nucleic Acids**
Inventors: Hartley *et al.*
Our Ref: 0942.4680003/RWE/BJD/JKM

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Fifth Supplemental Information Disclosure Statement;
2. List of cited references on Form PTO-1449 (9 pages);
3. A copy of each of the cited references on Form PTO-1449 (27 documents:
AM9, and AR105-AS113); and
4. One (1) return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents
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Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Brian J. Del Buono", with a long horizontal flourish extending to the right.

Brian J. Del Buono
Attorney for Applicants
Registration No. 42,473

RWE/BJD/JKM/acr
Enclosures

SKGF 209721v1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Hartley *et al.*

Appl. No. 09/517,466

Filed: March 2, 2000

For: **Compositions and Methods for
Use in Recombinational Cloning
of Nucleic Acids**

Confirmation No. 4289

Art Unit: 1634

Examiner: Johannsen, D.

Atty. Docket: 0942.4680003/RWE/BJD/JKM

Fifth Supplemental Information Disclosure Statement

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Fifth Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Third Supplemental Information Disclosure Statement filed on June 17, 2003, and Applicants' Fourth Supplemental Information Disclosure Statement, filed electronically herewith, in connection with the above-captioned application. A copy of each document is also provided.

The Examiner is referred to the following list of related, co-pending patent applications:

U.S. Patent Application No. 09/984,239, filed October 29, 2001, inventors Brasch *et al.*, submitted herewith as Document **AS112**;

U.S. Patent Application No. 10/396,696, filed March 26, 2003, inventors Hartley *et al.*, submitted herewith as Document **AT112**;

U.S. Patent Application No. 10/454,793, filed June 5, 2003, inventors Chesnut *et al.*, submitted herewith as Document **AR113**;

U.S. Patent Application No. 10/640,422, filed August 14, 2003, inventors Cheo *et al.*, submitted herewith as Document **AS113**.

The identification of these U.S. Patent Applications is not to be construed as a waiver of secrecy as to these applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered. This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist.

This Fifth Supplemental Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.

Consideration of the cited documents and making the same of record in the prosecution of the above-identified application is respectfully requested. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

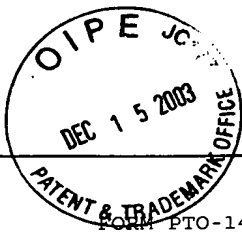
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Brian J. Del Buono
Attorney for Applicants
Registration No. 42,473

Date: Dec. 15, 2003

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600



FIFTH SUPPLEMENTAL
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APPLICATION NO.
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APPLICANT
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	AL						Yes No
	AM9	WO 96/40722 A1	12/19/1996	WIPO			Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	105	Barnes, G., and Rine, J., "Regulated expression of endonuclease EcoRI in <i>Saccharomyces cerevisiae</i> : Nuclear entry and biological consequences," <i>Proc. Natl. Acad. Sci. USA</i> 82:1354-1358, National Academy of Sciences (1985).
AS	105	Bauer, C.E., et al., "Extent of Sequence Homology Required for Bacteriophage Lambda Site-specific Recombination," <i>J. Mol. Biol.</i> 181:187-197, Academic Press, Inc. (1985).
AT	105	Brent, R., and Ptashne, M., "A bacterial repressor protein or a yeast transcriptional terminator can block upstream activation of a yeast gene," <i>Nature</i> 312:612-615, Macmillan Journals, Ltd. (1984).

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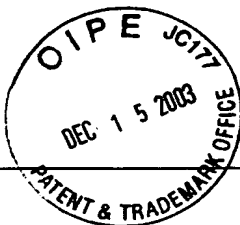
OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>106</u>	Cherepanov, P.P., and Wackernagel, W., "Gene disruption in <i>Escherichia coli</i> : Tc ^R and Km ^R cassettes with the option of FLP-catalyzed excision of the antibiotic-resistance determinant," <i>Gene</i> 158:9-14, Elsevier Science B.V. (1995).
	AS	<u>106</u>	Collis, C.M., and Hall, R.M., "Expression of Antibiotic Resistance Genes in the Integrated Cassettes of Integrins," <i>Antimicrobial Agents Chemother.</i> 39:155-162, American Society for Microbiology (1995).
	AT	<u>106</u>	Cormack, B., "Directed Mutagenesis Using the Polymerase Chain Reaction," in <i>Current Protocols in Molecular Biology</i> 1:8.5.1-8.5.10, Ausubel, F.M., et al., eds., John Wiley & Sons, Inc. (1997).

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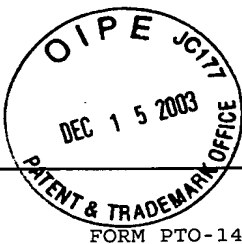
OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	107	Enquist, L.W., and Weisberg, R.A., "The Red Plaque Test: A Rapid Method for Identification of Excision Defective Variants of Bacteriophage Lambda," <i>Virology</i> 72:147-153, Academic Press, Inc. (1976).
	AS	107	Feinbaum, R., "Vectors Derived from Plasmids: Introduction to Plasmid Biology," in <i>Current Protocols in Molecular Biology</i> 1:1.5.1-1.5.17, Ausubel, F.M., et al., eds., John Wiley & Sons, Inc. (1998).
	AT	107	Iino, T., and Kutsukake, K., "Trans-acting Genes of Bacteriophages P1 and Mu Mediate Inversion of a Specific DNA Segment Involved in Flagellar Phase Variation of <i>Salmonella</i> ," <i>Cold Spring Harb. Symp. Quant. Biol.</i> 45:11-16, Cold Spring Harbor Laboratory (1981).

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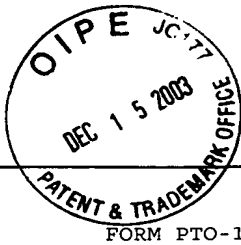
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	AR	108	Johnson, R.C., et al., "Isolation of the gene encoding the Hin recombinational enhancer binding protein," <i>Proc. Natl. Acad. Sci. USA</i> 85:3484-3488, National Academy of Sciences (1998).
	AS	108	Klippel, A., et al., "Isolation and characterization of unusual <i>gin</i> mutants," <i>EMBO J.</i> 7:3983-3989, IRL Press, Ltd. (1988).
	AT	108	Koch, C., et al., " <i>Escherichia coli</i> host factor for site-specific DNA inversion: Cloning and characterization of the <i>fis</i> gene," <i>Proc. Natl. Acad. Sci. USA</i> 85:4237-4241, National Academy of Sciences (1988).

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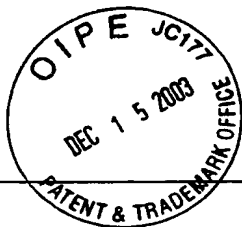
OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	109	Langeveld, S.A., et al., "Expression of an <i>Escherichia coli</i> <i>phr</i> gene in the yeast <i>Saccharomyces cerevisiae</i> ," <i>Mol. Gen. Genet.</i> 199:396-400, Springer-Verlag (1985).
	AS	109	Miller, H.I., et al., "int-h: an <i>int</i> Mutation of Phage λ That Enhances Site-Specific Recombination," <i>Cell</i> 20:721-729, MIT (1980).
	AT	109	Murayama, N., et al. "Evidence for Involvement of <i>Escherichia coli</i> Genes <i>pmbA</i> , <i>csrA</i> and a Previously Unrecognized Gene <i>tlcD</i> , in the Control of DNA Gyrase by <i>letD</i> (<i>ccdB</i>) of Sex Factor F," <i>J. Mol. Biol.</i> 256:483-502, Academic Press, Ltd. (1996).

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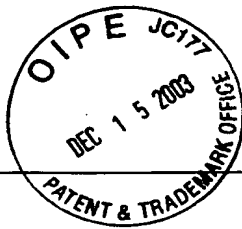
OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>110</u>	Okayama, H., and Berg, P., "Bacteriophage Lambda Vector for Transducing a cDNA Clone Library into Mammalian Cells," <i>Mol. Cell. Biol.</i> 5:1136-1142, American Society for Microbiology (1985).
	AS	<u>110</u>	Osuna, R., et al., "Identification of two functional regions in Fis: the N-terminus is required to promote Hin-mediated DNA inversion by not λ excision," <i>EMBO J.</i> 10:1593-1603, Oxford University Press (1991).
	AT	<u>110</u>	Sambrook, J., et al., <i>Molecular Cloning: A Laboratory Manual</i> , 2nd ed., Cold Spring Harbor Laboratory Press, New York, pp. 16.6-16.8 (1989).

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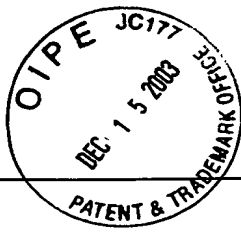
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	AR	<u>111</u>	Sauer, B., and Henderson, N., "Site-specific DNA recombination in mammalian cells by the Cre recombinase of bacteriophage P1," <i>Proc. Natl. Acad. Sci. USA</i> 85:5166-5170, National Academy of Sciences (1988).
	AS	<u>111</u>	Sauer, B., "Expression and Functioning in Yeast of a Bacterial Site Specific Recombination System," <i>J. Cell. Bio. Chem. Supp.</i> 10(b):242, Abstract No. I340, Alan R. Liss, Inc. (1986).
	AT	<u>111</u>	Stryer, L., <i>Biochemistry</i> , 2nd ed., W.H. Freeman and Co., San Francisco, CA, p. 610 (1981).

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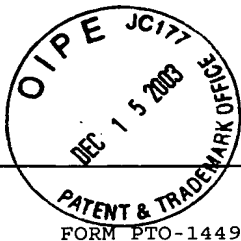
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	AR	<u>112</u>	Vetter, D., et al., "Site-specific recombination of yeast 2- μ m DNA in vitro," Proc. Natl. Acad. Sci. USA 80:7284-7288, National Academy of Sciences (1983).
	AS	<u>112</u>	Copy of co-pending U.S. Application No. 09/984,239, inventors Brasch et al., filed on October 29, 2001 (NOT PUBLISHED).
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